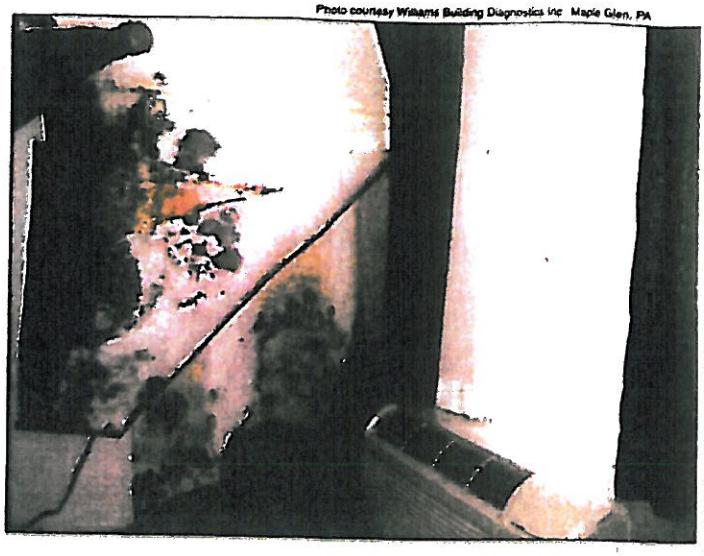
Stop Mold With Prevention

Photo courtesy Williams Building Diagnostics Inc Maple Glen, PA



Mold, as found in this hotel room, is difficult and expensive to eliminate once it is established. Prevention during construction is the best way to handle this problem.

Mold, or the perception that it's present, can be very costly to contractors and owners. It also can devalue a building. Prevention is the only effective way to deal with it.

By Charles Perry

Over the past several years, mold has crept into many thousands of commercial buildings and multifamily dwellings across the country, causing serious concern for builders. Perception is reality, and if the perception is that there is mold on-site, then the builder's reputation will be tarnished, even if that particular strain of mold does not affect physical health. This is especially true for three reasons.

- There is no longer any coverage for mold in commercial or multifamily property-casualty insurance—a builder's first line of defense prior to the past 2 yr.
- Since insurance coverage is gone, the next alternative for a financial solution is litigation—one of the primary reasons lawsuits involving mold and real estate are being filed at a rate of ten or more per day. That has been the case for the past 3 yr.
- Despite a decade of environmental changes in the building industry, including protocols having to do with issues such as asbestos, lead paint, and leaking underground-storage tanks, mold is an altogether different enemy. At least with any of those other environmental hazards, if you removed them, you knew they were gone, and you and your lender moved on. Unfortunately, that's not the case with mold.

The conditions required for mold to grow are mold spores; moisture; a normal temperature range; and the presence of a food source, such as cellulose (paper), according to an analysis developed by the University of Florida, Gainsville, FL. Because temperatures, airborne spores, and moisture occur naturally, the

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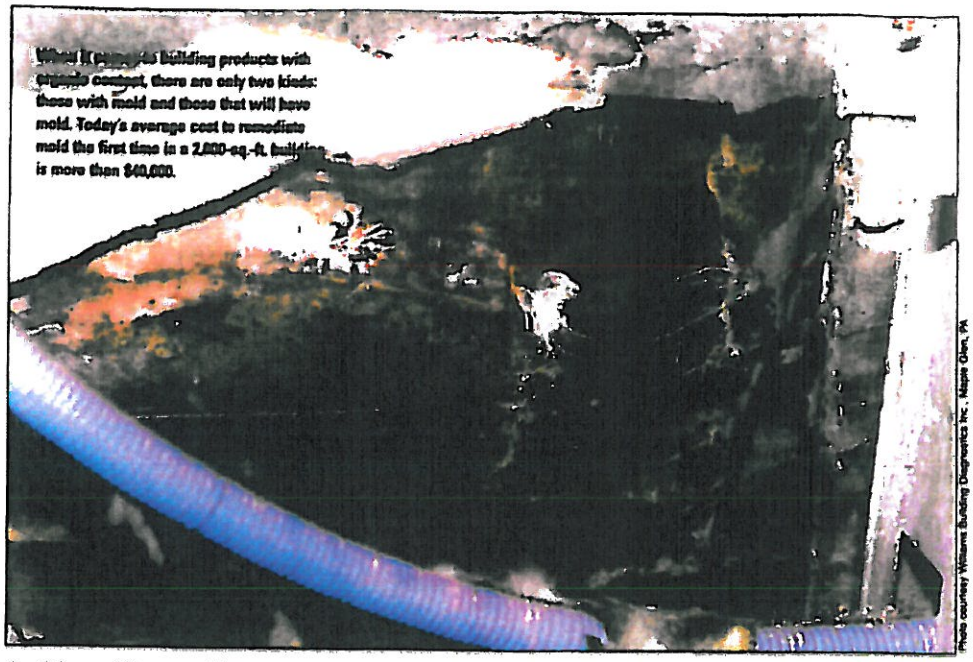

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only truly controllable variable is the food source. The food source primarily includes products with organic content, which account for approximately 80% of a building's surface area. Water plus organic material means mold. As one consultant told me, "It means mold 100% of the time."

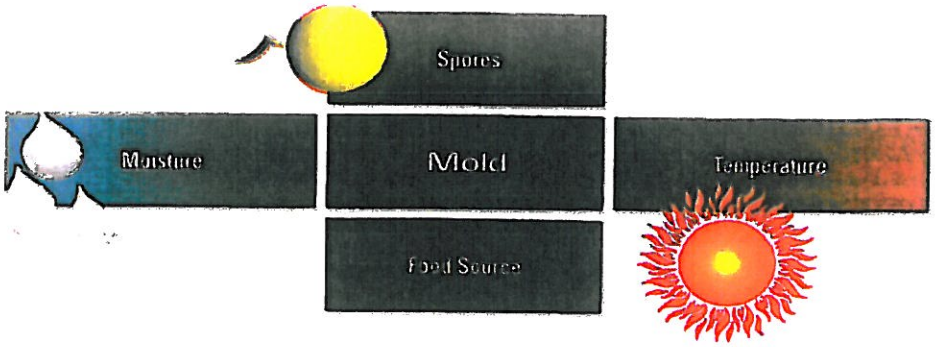
Organic products, in the form of carpets, ceiling tiles, insulation, and paper-faced wallboard, have been major components of building construction for decades. When it comes to products with organic content, there are only two kinds: those with mold and those that will have mold. If mold is present and you have it removed, given the right climate or an unseen water-soaked area of the building, it will be back for another visit in 48 hr. If the conditions are right next year, the chances of another invasion are extremely good. If the growth is in a relatively inaccessible area, the mold can get out of control before it is noticed. The only real solution to the mold problem is prevention.

Four mold myths

Unfortunately, much of what people believe about mold is wrong. Here are four mold myths:

- **If you can control moisture, you can control mold.** The fact is that humidity is always present. If you live in or build and finance properties in certain parts of the country, it will likely be worse. Humans, with our four bathrooms and our dishwashers, generate more moisture in a day than is allowed into a building by poor construction. Water is a fact of life.
- **Remediation is the solution.** Once mold has become visible and able to be remediated, it's too late. No matter what you do, unless you remove everything that might have caused the problem or "scraped the ground," as they say; or unless you've moved from Texas to Minneapolis to escape the humidity, mold will likely return. Today's average cost to remediate mold in a 2,000-sq.-ft. business is more than $40,000, and that's just the first time around. In contrast, you could spend no more than a few hundred dollars on preconstruction mold prevention on that same building and stand a very good chance of never having to worry about mold contamination. One builder who specializes in $1- to $3-million houses on the East Coast, said, "The equivalent of making these homes mold resistant is probably the same as upgrading a sink and a light fixture in a bathroom."
- **Inspections reveal mold.** A recent informal poll of Mortgage Bankers Association (MBA, Washington) members showed that 75% of respondents performed a mold inspection for loan purchases and 53% performed a mold inspection for loan originations—which, generally speaking, is a good thing. The bigger issue, however, is that a recent interview with a number of remediators showed that more than 80% believed that a mold inspection is productive only if the mold is visible. Beyond that, we have no standards to help us judge whether a mold level is above or below a certain standard. Imagine the complexity of attempting to set standards for, say, 100,000 types of mold and a million different types of immune-system reactions—it simply is not going to happen. This is unfortunate, because standards would help lenders and builders considerably. In that same poll, 25% of lenders said that

Four mold-growing factors



Mix a normal building temperature range, some mold spores, moisture, and a food source, such as cellulose, and you will have the makings for significant mold growth that will not easily go away.

the lack of standards delayed loan closings. More than 20% said the lack of standards caused termination of loan applications.

• **Mold accumulates within structures over long periods of time.** The majority of serious mold problems start before construction begins. The way in which building materials are stored at the warehouse, transported to the site, and stored on-site will often determine the probability of mold damage down the line. Building materials are often exposed to mold spores before a contractor puts a hammer to the first nail.

While the scientific debate stumbles along over how mold affects physical health, there is no doubt whatsoever that mold affects the financial health of commercial and multifamily properties. The effects can be so bad, in fact, that the MBA established a working group on mold. The group, of which I am a member, was due to present its report at the MBA's Commercial Real Estate Finance/Multifamily Housing Convention in February, 2005.

As a lender for 20 yr. and a consultant on environmental issues concerning real estate for more than 12 yr., experience tells me that, unless builders drastically change the way they approach the mold problem, the worst is yet to come. Some say the days of huge multi-million-dollar jury prizes in mold cases are over. This may be true for bad-faith claims between individuals and insurers, which were not really about mold in the first place but more about bad faith later. Mold-liability lawsuits, however, initiated by retail tenants, commercial employees, and multifamily residents, are rising every month.

Several sources estimate an average of ten mold claims are filed daily. That number could easily rise to 20 per day in the near future unless we change our building habits and lending policies. This is especially true for every new site being built where a prevention approach could really help. The Insurance Information Institute, New York, reports that carriers paid approximately $1.4 billion in mold-related claims in the United States in 2001. In 2002, payouts rose to $3 billion.

Effect on property values

In an informal MBA survey, members were asked for which property types they were likely to request a mold survey/assessment. Here are some results:

• **Multifamily.** Twenty-two of 24 lenders said they were most likely to request a mold survey on a multifamily/apartment building. The reason is simple. Imagine a homeowner in Texas, who recently won several million dollars from an insurance company for mold damage. Now multiply that suit by 300 tenants. That is the risk level of multifamily collateral. If mold finds a home in the air vents, every single occupant could be affected one way or another.

• **Hospitals/health-care centers/nursing homes.** Next on the worry list was the health-care sector (17 of 20 lenders). Obviously, the last place you want to find air-quality problems is in a hospital. The liability issues are massive because they are largely health related. Class-action lawsuits are engulfing borrowers. Financial pressure is also coming in the form of worker-compensation claims and extended employee disability leaves. In addition, once mold takes hold, premiums for directors and officers (D&O) insurance and commercial general liability (CGL) insurance skyrocket. Most types of coverage exclude any third-party coverage for mold-related claims and, more important, insurers therefore have no duty to defend insured parties. These factors can decimate a borrower's ability to make payments.

• **Hotels and other hospitality structures.** Several high-profile cases of mold in hotels have caused retail tenants to flee; lawsuits to be filed; and, in the case of one resort hotel in Hawaii, the building to be closed just months after it opened. Worse, the property is tainted with the mold equivalent of yesterday's mold problem, Legionnaires' disease. If the hotel reopens, occupancy rates may never recover because of the stigma. The likelihood of a lucrative resale or refinancing plummets. Again, the lender is exposed to 80% of that risk.

• **Schools.** Unlike a mold problem in a home, infestations in schools can cost taxpayers and bond-holders millions of dollars, along with the concern over student and school-employee health. The extent of the mold infestation in a school may cause collateral impairment that requires expensive remediation, as well as causing worker-compensation claims. Add to that the cost of closing schools and rerouting students to different facilities, backlash from parent-teacher groups, and possible liability suits from school employees, and the negative impact of mold becomes clear.

Builders taking action

Builders can help prevent mold growth by educating themselves on the latest developments in mold inspections and mold-resistant building materials.

Take these steps to prevent mold

1 Use mold-resistant building materials, *i.e.*, unfaced insulation; composite panels; inorganic nonwoven house wraps; mold-resistant roofing products; tile backer; composite plastic panels and decking; glass curtain walls; and, most important, paperless drywall. The additional cost of building with mold-resistant materials is miniscule compared with the dramatic costs to remediate a mold infestation, not to mention the costs associated with third-party lawsuits stemming from bodily injury claims and construction defects.

2 Use mold-resistant construction techniques, *i.e.*, a capillary break under the foundation, a waterproof roofing system, windows with low potential for condensation, and newly developed mechanical ventilation systems. You can't prevent moisture from entering the structure, but you can take steps to avoid excess water buildup and reduce the likelihood of leakage.

3 Order mold inspections before, during, and after construction. Unlike most inspections, a mold-specific (indoor air quality) engineer will know where, how, and when to look for it, saving your client, and therefore you, thousands of dollars. I know a builder who caught a subcontractor putting up wallboard by nailing slats into a ceiling that were black with mold. These were new materials that had just been sitting at the job site for a couple of days, and already mold had totally covered them. If the builder hadn't caught it, these slats would have stayed in the ceiling, and the mold would have metastesized to the paper-faced wallboard and throughout the million-dollar home.

Lenders in the MBA are considering setting new guidelines that include requiring mold-resistant building products, mold-resistant construction techniques, and effective inspection regimes, especially inspections that take place while the building products lie on the ground at the very start of construction. Builders, who are just as exposed as lenders, should lead rather than follow on this issue.

Wallboard is the most common element of any post-1950s building. Unfortunately, the paper facing on the front and back makes a great home for mold. Builders should use paperless wallboard, which is sheathed with fiberglass rather than paper. These kinds of building products have recently been developed for the insides of buildings, but are a technology that has been universally accepted and extremely successful for exterior use for 20 yr. To back that up, builders should also require pre-/during-/post-project inspections that check for the presence of mold and mold-resistant products.

In other words, if you were to construct a building of totally inert materials, such as fiberglass, aluminum, and other man-made inorganic materials, and you built it wisely, then you probably will not have a mold problem. Contractors and architects are becoming somewhat concerned about the difference in price when they bid. However, the cost increase—a trivial fraction of the property's sale price—now pales in comparison with the future benefits to all involved. If a property owner, investor, or lender understands that you're trying to protect him from this potential financial disaster, he will likely look at the bids in a different way and not just go for the low ball. ▶

Charles L. Perry, Jr. is the principal and founder of Environmental Assurance Group (EAG), Hartford, CT, a mold and environmental risk management consulting group whose clients include various nationally recognized institutional real estate lending institutions. Prior to founding EAG, Perry spent 12 yr. as president and founder of Environmental Warranty Inc., Hartford, CT, (EWI), an environmental insurance underwriting and brokerage firm.